

WE CLAIM:

1. A method of preserving a food product from both deterioration due to microbial growth and oxidation of any constituent fats or oils which may be present within said food product, which comprises adding to the food product one or more phytosterols, phytosterols, or mixtures thereof.
2. The method of claim 1 wherein the phytosterol is selected from the group consisting of sitosterol, campesterol, stigmasterol, brassicasterol (including dihydrobrassicasterol), desmosterol, chalinosterol, poriferasterol, clionasterol, ergosterol, coprosterol, codisterol, isofucosterol, fucosterol, clerosterol, nervisterol, lathosterol, stellasterol, spinasterol, chondrillasterol, peposterol, avenasterol, isoavenasterol, fecosterol, pollinastasterol and all natural or synthesized forms and derivatives thereof, including isomers.
3. The method of claim 1 wherein the phytosterol is selected from the group consisting of all saturated or hydrogenated phytosterols and all natural or synthesized forms and derivatives thereof, including isomers.
4. The method of claim 1 wherein the phytosterols and/or phytosterols are in form selected from the group consisting of: aliphatic acid esters, aromatic acid esters, phenolic acid esters, cinnamate esters, ferulate esters, phytosterol/phytosterol glycosides, and phytosterol/phytosterol acylglycosides .
5. The method of claim 1 wherein the phytosterols added are in the form of a composition comprising one or more free phytosterols and phytosterols ("free sterols") and one or more esterified phytosterols and phytosterols ("esterified sterols").
6. The method of claim 5 wherein the composition comprises at least 10% (by weight) free sterols.

7. The method of claim 5 wherein the composition comprises between 10-90% by weight free sterols.
8. The method of claim 5 wherein the composition comprises free sterols and esterified sterols in a ratio of about 1:1.
9. The method of claim 1 wherein the phytosterol and/or phytostanol is added in an amount totalling from between 0.05% to 10% by weight of the food product.
10. The method of claim 1 wherein the food product is fat-based.
11. The method of claim 1 wherein the food product is a liquid edible oil.
12. The method of claim 1 wherein the food product includes beverages.
13. The method of claim 1 wherein the food product is a particulate food material.
14. The method of claim 1 wherein the food product is selected from the group consisting of dairy products, margarine, peanut and other butters, shortening, meats, poultry, fish, seafood, sauces, fruits, vegetables, grains, grain-derived products, baked goods, fried snack products, confections and chocolate.
15. The method of claim 1 wherein the food product is ground meat.
16. The method of claim 1 wherein the food product is a nutraceutical.
17. The method of claim 1 wherein the phytosterols and/or phytosteranols are effective against bacterial, viral, yeast and fungal growth.
18. A food product comprising an anti-microbiologically effective amount of one or more

phytosterols, phytosterols, or mixtures thereof.

19. The food product of claim 18 wherein the phytosterol is selected from the group consisting of sitosterol, campesterol, stigmasterol, brassicasterol (including dihydrobrassicasterol), desmosterol, chalinosterol, poriferasterol, clionasterol, ergosterol, coprosterol, codisterol, isofucosterol, fucosterol, clerosterol, nervisterol, lathosterol, stellasterol, spinasterol, chondrillasterol, peposterol, avenasterol, isoavenasterol, fecosterol, pollinastasterol and all natural or synthesized forms and derivatives thereof, including isomers.

20. The food product of claim 18 wherein the phytosterol is selected from the group consisting of all saturated or hydrogenated phytosterols and all natural or synthesized forms and derivatives thereof, including isomers.

21. The food product of claim 18 wherein the phytosterols and/or phytosterols are in form selected from the group consisting of: aliphatic acid esters, aromatic acid esters, phenolic acid esters, cinnamate esters, ferulate esters, phytosterol/phytosterol glycosides, and phytosterol/phytosterol acylglycosides .

22. The food product of claim 18 wherein the phytosterol and/or phytosterol is present in an amount totalling from between 0.05% to 10% by weight of the food product.

23. The food product of claim 18 which is fat-based.

24. The food product of claim 18 which is a liquid edible oil.

25. The food product of claim 18 selected from the group consisting of dairy products, margarine, peanut and other butters, shortening, meats, poultry, seafood, sauces, fruits, vegetables, grains, grain-derived products, baked goods, fried snack products, confections and chocolate.

26. The food product of claim 18 wherein the phytosterols added are in the form of a composition comprising one or more free phytosterols and phytosterols ("free sterols") and one or more esterified phytosterols and phytosterols ("esterified sterols").

27. The food product of claim 26 wherein the composition comprises at least 10% (by weight) free sterols.

28. The food product of claim 26 wherein the composition comprises between 10-90% by weight of free sterols.

29. The food product of claim 26 wherein the composition comprises free sterols and esterified sterols in a ratio of about 1:1.

30. A method of reducing the microbial contamination of a particulate food material comprises mixing into or forming said food material with an effective amount of one or more phytosterols, phytosterols, or mixtures thereof.

31. The method of claim 30 wherein said particulate food material is ground meat.

32. The method of claim 30 wherein said ground meat is beef.

33. The method of claim 30 wherein said ground meat is pork.

34. The method of claim 30 wherein the phytosterols added are in the form of a composition comprising one or more free phytosterols and phytosterols ("free sterols") and one or more esterified phytosterols and phytosterols ("esterified sterols").

35. The method of claim 34 wherein the composition comprises at least 10% (by weight) free sterols.

36. A prepared food product comprising one or more phytosterols, phytostanols or mixtures of both, wherein said food product, after the processing steps to prepare the product and during storage before consumption, contains a reduced number of pathogenic and/or spoilage microbes as compared to the same food product without phytosterols and/or phytostanols.

37. The food product of claim 36 wherein the microbe is selected from the group consisting of bacteria, viruses, fungi and yeasts.